Release notes for ENDF/B Development n-006_C_013 evaluation

April 26, 2017

- `psyche` Warnings:
  1. Non-threshold reaction with Q value differing from PSYCHE's expectations
     FILE 3 / SECTION 102 / THE CALCULATED Q 8.16262E+06 DISSAGREES WITH THE GIVEN Q 4.94628E+06 (0): Iffy Q

```
FILE  3
   SECTION 102
            THE CALCULATED Q  8.16262E+06 DISSAGREES WITH THE GIVEN Q  4.94628E+06
```

- `fudge-4.0` Warnings:
  1. First cross section point not zero right at threshold
     reaction label 1: n + C13_e1 / Cross section: (Error # 0): nonZero_crossSection_at_threshold

```
WARNING: First cross section point for threshold reaction should be 0, not 6.897122e-05
```

  2. First cross section point not zero right at threshold
     reaction label 2: n + C13_e2 / Cross section: (Error # 0): nonZero_crossSection_at_threshold

```
WARNING: First cross section point for threshold reaction should be 0, not 0.0001360326
```

  3. First cross section point not zero right at threshold
     reaction label 3: n + C13_e3 / Cross section: (Error # 0): nonZero_crossSection_at_threshold

```
WARNING: First cross section point for threshold reaction should be 0, not 1.54136e-10
```

  4. Cross section does not match sum of linked reaction cross sections
     crossSectionSum label 0: total (Error # 0): CS Sum.

```
WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.36%
```

- `njoy2012` Warnings:
  1. The cross section is nonzero at threshold
     reconr...reconstruct pointwise cross sections in pendf format (0): Sig(Eth)>0

```
 ---message from lunion---xsec nonzero at threshold for mt= 51
                          adjusted using jump in xsec
```

  2. The cross section is nonzero at threshold
     reconr...reconstruct pointwise cross sections in pendf format (1): Sig(Eth)>0

```
 ---message from lunion---xsec nonzero at threshold for mt= 52
                          adjusted using jump in xsec
```

  3. The cross section is nonzero at threshold
     reconr...reconstruct pointwise cross sections in pendf format (2): Sig(Eth)>0

```
 ---message from lunion---xsec nonzero at threshold for mt= 53
                          adjusted using jump in xsec
```

  4. This nuclide has no URR and NJOY is upset about it
     unresr...calculation of unresolved resonance cross sections (0): No URR

```
---message from unresr---mat  628 has no resonance parameters
                          copy as is to nout
```

5. Cross sections were found for charged-particle levels in the 600 or 700 series of MT numbers, but no corresponding angular distributions were found. Isotropy is assumed to enable the calculation to proceed, but this evaluation should be upgraded to include the proper sections of File 4 or 6.
heatr...prompt kerma (0): HEATR/hinit (1)

```
---message from hinit---mf4 and 6 missing, isotropy assumed for mt 800
```

6. This nuclide has no URR and NJOY is upset about it
purr...probabalistic unresolved calculation (0): No URR

```
---message from purr---mat  628 has no resonance parameters
                          copy as is to nout
```

- `acelst` Warnings:

1. The incident energy grid is not monotonic for this angular distribution
0: Bad Ang. Dist.

```
ACELST WARNING - Processing Ang.Dist.MT         2
                 E-grid non-monotonic   7.200000000E+00 7.200000000E+00
```

2. The incident energy grid is not monotonic for this angular distribution
1: Bad Ang. Dist.

```
ACELST WARNING - Processing Ang.Dist.MT        51
                 E-grid non-monotonic   7.200000000E+00 7.200000000E+00
```

3. The incident energy grid is not monotonic for this angular distribution
2: Bad Ang. Dist.

```
ACELST WARNING - Processing Ang.Dist.MT        52
                 E-grid non-monotonic   7.200000000E+00 7.200000000E+00
```

4. The incident energy grid is not monotonic for this angular distribution
3: Bad Ang. Dist.

```
ACELST WARNING - Processing Ang.Dist.MT        53
                 E-grid non-monotonic   7.200000000E+00 7.200000000E+00
```

- `xsectplotter` Errors:

1. Exception AttributeError was thrown
(Error # 3): AttributeError

```
AttributeError: 'str' object has no attribute 'name'
```